AMENDMENTS TO THE CLAIMS

Claims 1-36 (Cancelled without prejudice)

37. (Previously Presented) A method of conditioning air for an enclosure by transferring heat and moisture between a first stream of outside ambient air and a second stream of enclosure return air comprising:

disposing a water-conducting membrane between said first and second stream, said water-conducting membrane having at least two opposed surfaces and comprising an at least partially sulfonated random hydrocarbon copolymer; and

contacting the first and second gas stream with an opposite surface of said water-conducting membrane, whereby heat and moisture are transferred between the first stream of outside ambient air and the second stream of enclosure return air.

38. (Previously Presented) The method of claim 37, wherein said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one arylvinyl monomer.

39. (Previously Presented) The method of claim 38, wherein said at least one arylvinyl monomer is at least partially sulfonated.

40. (Previously Presented) The method of claim 37, wherein said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one olefin monomer.

41. (Previously Presented) A heat and moisture exchanger core for transferring heat and moisture between a first stream of outside ambient air and a second stream of enclosure return air comprising a water-conducting membrane disposed between the

first stream of outside ambient air and the second stream of enclosure return air, said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer;

whereby heat and moisture are transferred between the first stream of outside ambient air and the second stream of enclosure return air.

42. (Previously Presented) The heat and moisture exchanger core of claim 41, wherein said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one arylvinyl monomer.

43. (Previously Presented) The heat and moisture exchanger core of claim 42, wherein said at least one arylvinyl monomer is at least partially sulfonated.

44. (Previously Presented) The heat and moisture exchanger core of claim 41, wherein said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one olefin monomer.

45. (Previously Presented) An apparatus for conditioning air for an enclosure comprising a heat and moisture exchanger core for transferring heat and moisture between a first stream of outside ambient air and a second stream of enclosure return air, said heat and moisture exchanger core comprising a water-conducting membrane disposed between a first stream of outside ambient air and a second stream of enclosure return air, said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer;

whereby heat and moisture are transferred between the first stream of outside ambient air and the second stream of enclosure return air.

46. (Previously Presented) The apparatus for conditioning air for an enclosure comprising a heat and moisture exchanger core of claim 45, wherein said water-conducting

membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one arylvinyl monomer.

47. (Previously Presented) The apparatus for conditioning air for an enclosure comprising a heat and moisture exchanger core of claim 46, wherein said at least one arylvinyl monomer is at least partially sulfonated.

48. (Previously Presented) The apparatus for conditioning air for an enclosure comprising a heat and moisture exchanger core of claim 45, wherein said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one olefin monomer.

49. (New) A method of conditioning air for an enclosure by transferring heat and moisture between a first stream of outside ambient air and a second stream of enclosure return air comprising:

disposing a water-conducting membrane between said first and second stream, said water-conducting membrane having at least two opposed surfaces and comprising a sulfonated statistical copolymer, said statistical copolymer comprising at least one arylvinyl monomer and at least one olefin monomer, and wherein aromatic moieties derived from the arylvinyl monomer are at least partially sulfonated; and

contacting the first and second gas stream with an opposite surface of said water-conducting membrane, whereby heat and moisture are transferred from the first stream of outside ambient air to the second stream of enclosure return air.

50. (New) A method according to claim 49 wherein said statisitical copolymer comprises styrene and ethylene.

51. (New) A method according to claim 49 wherein said statisitical copolymer comprises styrene and butadiene.

52. (New) A heat and moisture exchanger core for transferring heat and moisture between a first stream of outside ambient air and a second stream of enclosure return air comprising a water-conducting membrane disposed between the first stream of outside ambient air and the second stream of enclosure return air, said water-conducting membrane comprising a sulfonated statistical copolymer, said statistical copolymer comprising at least one arylvinyl monomer and at least one olefin monomer, wherein aromatic moieties derived from the arylvinyl monomer are at least partially sulfonated;

whereby heat and moisture are transferred from the first stream of outside ambient air to the second stream of enclosure return air.

53. (New) The heat and moisture exchanger core of claim 52, wherein said arylvinyl monomer is styrene.

54. (New). The heat and moisture exchanger core of claim 52, wherein said olefin monomer is selected from the group consisting of ethylene, propylene, 1-butene, 2-butene, 1-pentene, 4-methyl-1-pentene, 1-hexene, and 1-octene.

55. (New) The heat and moisture exchanger core of claim 52, wherein said statistical copolymer comprises styrene and ethylene.

56. (New) An apparatus for conditioning air for an enclosure comprising a heat and moisture exchanger core for transferring heat and moisture between a first stream of outside ambient air and a second stream of enclosure return air, said heat and moisture exchanger core comprising a water-conducting membrane disposed between a first stream of outside ambient air and a second stream of enclosure return air, said water-conducting membrane comprising a sulfonated statistical copolymer, said statistical copolymer comprising at least one arylvinyl monomer and at least one olefin

monomer, wherein aromatic moieties derived from the arylvinyl monomer are at least partially sulfonated;

whereby heat and moisture are transferred from the first stream of outside ambient air to the second stream of enclosure return air.

57. (New) The apparatus of claim 56, wherein said arylvinyl monomer is styrene.

58. (New) The apparatus of claim 56, wherein said olefin monomer is selected from the group consisting of ethylene, propylene, 1-butene, 2-butene, 1-pentene, 4-methyl-1-pentene, 1-hexene, and 1-octene.

59. (New) The apparatus of claim 56, wherein said statisitical copolymer comprises styrene and ethylene.